Diagnostic Devices and Apparatus for the Controlled Movement of Reagents Without Membranes

5/24/04

This application is a continuation-in-part of U.S. Patent Application No. 08/828,041 (now USP 6,156,270) ~~(pending)~~, which is a continuation in part of U.S. Patent Application No. 08/447,895, which issued as U.S. Patent No. 6,019,944 on February 1, 2000, which is a divisional applications of U.S. Patent Application No. 08/065,528 (abandoned), filed 19 May 1993, which was a continuation-in-part of U.S. Patent Application No. 07/887,526 filed 21 May 1992 which issued as Patent 5,458,852 on October 17, 1995; U.S. Patent Application No. 08/810,569 (now USP 6,143,576) ~~(pending)~~, which is a continuation in part of U.S. Patent Application No. 08/447,981, which issued as U.S. Patent No. 5,885,527 on March 23, 1999, which is a divisional application of U.S. Patent Application No. 08/065,528 (abandoned), filed 19 May 1993, which was a continuation-in-part of U.S. Patent Application No. 07/887,526 filed 21 May 1992 which issued as Patent 5,458,852 on October 17, 1995; and U.S. Patent Application No. 08/902,775 (now USP 6,274,040) ~~(pending)~~, which is a continuation in part of U.S. Patent Application No. 08/810,569 (now USP 6,143,576) ~~(pending)~~, from each of which priority is claimed, and each of which is fully incorporated by reference herein.

FIELD OF THE INVENTION

This invention relates to devices for conducting assays, including qualitative, semi-quantitative and quantitative determinations of one or more analytes in a single test format.

BACKGROUND OF THE INVENTION

Over the years, numerous simplified test systems have been designed to rapidly detect the presence of a target ligand of interest in biological, environmental and industrial fluids. A synonym for target ligand is analyte or target analyte. In one of their simplest forms, these assay systems and devices usually involve the combination of a test reagent which is capable of reacting with the target ligand to give a visual response and an absorbent paper or membrane through which the test reagents flow. Paper products, glass fibers and nylon are commonly used for the absorbent materials of the devices. In certain cases, the portion of the absorbent